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David B. Resnik and Christopher Portier

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Pesticide Testing on Human Subjects: Weighing Benefits and Risks

David B. Resnik, JD, PhD, Bioethicist, National Institute of Environmental Health Sciences, National Institutes of Health

Christopher Portier, PhD, Associate Director, National Toxicology Program, National Institute of Environmental Health Sciences, National Institutes of Health

Correspondence should be sent to:

David B. Resnik, NIEHS/NIH, PO Box 12233, Mail Drop NH-06, Research Triangle Park, NC, 27709. Phone: 919 541 5658; Fax: 919 541 3659; Email: resnikd@niehs.nih.gov.

Abbreviations

CFR	Code of Federal Regulations
DSMB	Data and Safety Monitoring Board
EPA	Environmental Protection Agency
EWG	Environmental Working Group
FQPA	Food Quality Protection Act
IRB	Institutional Review Board
MTD	Maximum Tolerable Dose
NOAEL	No Observable Adverse Effect Level
NRC	National Research Council
PD	Pharmacodynamics
PK	Pharmacokinetics

Section Headings

Background

Benefits vs. Risks in Research

Social Value

Scientific Necessity

Risk and Safety

Conclusion

Abstract

In the debate surrounding testing pesticides on human subjects, two distinct positions have emerged. The first position holds that pesticide experiments on human subjects should be allowed, but only under stringent scientific and ethical standards. The second position asserts that these experiments should never be allowed. In this article, we will evaluate what we consider to be the strongest argument for second position, namely, that the benefits of the experiments are not significant enough to justify the risks posed to healthy subjects. We challenge this argument by examining the benefits and risks of testing pesticides on human subjects. We argue the a study that intentionally exposes humans subjects to pesticides should be permitted if: (1) the knowledge gained from the study is expected to promote human health; (2) the knowledge cannot be reasonably obtained by other means; (3) the study is not expected to cause serious or irreversible harm to the subjects; and (4) appropriate safeguards are in place to minimize harm to the subjects.